

CLAIMS

What is claimed is:

- 1 1. An apparatus for setting the lateral register of a printing unit of a rotary
2 press for printing a paper web, the press comprising at least one forme cylinder having
3 a drive side, an operating side, and an axis therebetween, the apparatus comprising:
4 a first bearing block configured as a locating bearing and arranged on the drive
5 side;
6 a second bearing block configured as a floating bearing and arranged on the
7 operating side;
8 an adjustable stop;
9 a pressure medium operated operating cylinder displacing the first bearing block
10 axially and for pressing the first bearing block against the adjustable stop for the
11 purpose of lateral registration, the first bearing block being pressed against the
12 adjustable stop by a setting pressure in a setting direction;
13 a controller for controlling the axial location of the adjustable stop in at least one
14 of a closed-loop fashion and an open-loop fashion; and
15 at least one scanning-optics unit scanning the paper web and connected to the
16 controller.
- 1 2. The apparatus of claim 1 further comprising a pin connected to the bearing
2 block and guided through the adjustable stop, the pin having a head which comes into
3 contact with the stop without play as a result of the setting pressure.

1 3. The apparatus of claim 1, wherein the adjustable stop comprises a spur
2 gearfixed to the pin and threaded into a stationary housing, whereby the spur gear can
3 be moved by turning the spur gear.

1 4. The apparatus of claim 3 further comprising an actuating motor connected to
2 the spur gear for rotatably driving the spur gear.

1 5. The apparatus of claim 1 further comprising a drive for axially displacing the
2 first bearing block to set the lateral register, the drive displacing the first bearing block
3 with a speed which depends on the distance of the axial displacement.

1 6. The apparatus of claim 5, wherein the scanning optics unit scans the web and
2 determines the register deviations which are passed to the controller, the controller
3 controlling the speed as a function of the register variations by at least one of a variable
4 closed-loop control and variable open-loop control.

1 7. The apparatus of claim 5, wherein the speed of the axial displacement is a
2 function of at least one of the rotational speed of the forme cylinder and the
3 circumference of the forme cylinder.

1 8. The apparatus of claim 5, wherein the speed is relatively high for a relatively
2 large axial displacement distance and the speed is relatively low for a relatively small
3 axial displacement distance.

- 1 9. The apparatus of claim 8, wherein the speed is reduced without steps as the
- 2 displacement distance becomes smaller during correction of the lateral register.